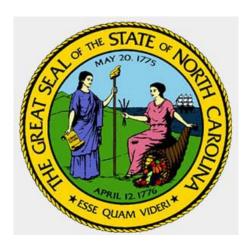
North Carolina

Department of Cultural Resources



Digital Preservation Policy Framework September 2005

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PURPOSE

This document formalizes the Department of Cultural Resources' (DCR's) commitment to the long-term or permanent preservation of digital state government assets produced by the State of North Carolina. This is consistent with DCR's current mandate to preserve and provide access to state government information and to maintain the documentary history of the State of North Carolina. DCR's core responsibilities to preserve and provide access will remain fundamentally the same, but how those functions or activities are accomplished in a digital environment will change significantly. Development of the digital preservation program will ensure that future generations will have access to the complete record of North Carolina State Government in the digital age.

OBJECTIVES

The primary intent of the digital preservation program is to bring together complementary interests within the State Library of North Carolina and the North Carolina State Archives and thereby forge a departmental-wide initiative for the preservation of the intellectual and cultural heritage of the State of North Carolina. This program can also serve as a model or blueprint for cooperation or collaboration with other interested state agencies. The program's objectives are to:

- Facilitate the transition within state government from a printed to a digital environment.
- Integrate digital preservation into existing DCR responsibilities, services, and mandated programs with minimal effect on existing services.

MANDATE (RELATED LEGISLATION)

The three key statutes that govern the activities of DCR provide the mandate for the creation of a digital preservation program:

- N.C. Gen. Stat. § 132, North Carolina Public Records Laws
- N. C. Gen. Stat. § 121, Archives and History
 North Carolina General Statutes 121 and 132 require that "all documents, papers, letters, maps, books, photographs, films, sound recordings, magnetic or other tapes, electronic data processing records, artifacts, or other documentary material, regardless of physical form or characteristic, made or received pursuant to law or ordinance in connection with the transaction of public business by any agency of North Carolina government or its subdivisions" are considered public records and may not be disposed of, erased, or destroyed without specific guidance from DCR.
- N. C. Gen. Stat. § 125, State Library Agency
 North Carolina General Statute 125 charges the State Library as the "official, complete, and permanent depository for all publications." All publications, regardless of format, should be made generally available for circulation to libraries and to all citizens of the State under rules and regulations fixed by the State Librarian.

As the official archival agency and custodian of archival records and permanent repository for state publications of the state of North Carolina, DCR has mandatory responsibilities to preserve and maintain access to digital assets along with traditional print materials. Visitors to the State Library and State Archives are increasingly coming via cyberspace as more people expect information to be available through the Internet. To serve their constituents, the State Library and State Archives are providing more information and services to remote users. By DCR taking the lead in the preservation of digital assets, the State Archives and State Library will be able to protect their investment in digitized collections and collections of born-digital state government information and continue to provide quality services to support the research needs of their user community.

SCOPE

The digital preservation program will be responsible for identifying, securing, and providing the means to preserve and ensure ongoing access to digital government assets created by North Carolina State Government. A digital asset is an electronic object that has value for some purpose. It may have been created digitally or it may have been digitized from a non-digital original source to enhance access to the material. Examples of digital assets include word processing documents, databases, websites, and digital publications and other organizational records. To become part of DCR's digital preservation program, a digital asset will be evaluated in accordance with records retention policies and appraisal of its long-term or permanent value to the State of North Carolina. Assets selected for permanent retention will have ongoing usefulness or significance, based on the administrative, legal, fiscal, evidential, or historical information they contain that justifies their continued preservation. The following types of records will be included under this program:

- Digitized assets produced by state government agencies
- Born-digital assets produced by state government agencies
- Born-digital assets produced by local government agencies

CHALLENGES/INCENTIVES

With the information age comes the knowledge society in which knowledge is a commodity traded through digital means. The transition from a printed to a predominantly digital environment within state government has already begun. The success of the transition will be hampered, however, by the potential loss of important digital assets that document the history and decision-making processes of North Carolina State Government. Current DCR programs and resources are simply not adequate to support a sustained digital preservation program. DCR acknowledges that the development of a comprehensive and effective digital preservation program is a complicated task. The challenges in creating such a digital preservation program include, for example, rapid changes in digital technology, the growth of information and formats, the need for new staffing and skills, the ability to sustain a digital preservation program, and the

need to forge strong relationships with content providers. To meet these challenges and develop an effective digital preservation program will require a unified departmental initiative.

Investment in a digital preservation program will secure lasting, rather than short-term benefits of the transition to a digital world. Though the costs of preserving digital assets may be high, the costs and implications of failing to preserve it will be even higher. Without the adoption of strategic measures to identify at-risk digital assets and deploy adequate resources to capture and make accessible those assets, North Carolina's historical and cultural legacy in digital form will be lost.

PRINCIPLES

The digital preservation program is based on the following principles:

- A collaborative approach to realizing a digital preservation program that involves stakeholders, both within North Carolina and the nation, at all levels of planning, development, and implementation.
- Ongoing sustained support and engagement from upper management.
- Development of an interoperable digital repository using the best technology available—commercially or in-house—incorporating open source options whenever feasible.
- Implementation of a range of community-based standards and best practices and national and/or international standards for the physical environment, backup and recovery procedures, quality control, security systems, access, and other necessary functions.
- Lifecycle management of digital assets that includes the development of consistent documented guidelines and procedures for each stage of the lifecycle (i.e., creation, selection, acquisition, identification/cataloging, storage, preservation, access).
- Development of a digital preservation program and repository that complies with archival requirements pertaining to provenance, chain of custody, intellectual property rights, authenticity, and integrity of digital assets, using nationally and internationally accepted standards.
- Development of a digital preservation program and repository that complies with and utilizes the Open Archival Information System standard as its base.
- Review of policies and procedures on a regular basis, taking into account changes in the
 organizational, legal, and technical environment that may necessitate revising or
 implementing new policies and procedures to maintain the program.

ROLES AND RESPONSIBILITIES

The Department of Cultural Resources (DCR) will be responsible for the preservation of digital publications and records produced by North Carolina State Government as a continuation of DCR's responsibility to preserve that information in analog formats. Involvement and collaboration will be necessary for the success of the digital preservation program, both within DCR and throughout state and local government:

- DCR librarians, archivists, and records managers: Traditionally, responsibility has been divided between the State Archives and the State Library, depending on whether information was a record created as part of the internal workings of state or local government or disseminated to the public in the form of a publication. In the digital environment, however, the boundaries between publications and records and between internal and public use have blurred. Expertise from both programs is needed; therefore the digital preservation program must be a DCR-wide initiative.
- DCR management: It is the responsibility of DCR management to provide adequate managerial and financial commitment for this digital preservation program. Resource allocation to support digital preservation is key to the future of NC's heritage. As resource commitments are made they need to take into consideration the extent to which digital preservation can enhance or replace existing services and functions.
- DCR IT: The preservation of digital materials will require a much higher involvement of information technology experts than needed with analog materials.
- State agencies and local government: As with analog materials, content creators will play a key role in ensuring that digital content is properly identified and collected by DCR. However, because of the immensely greater risk of loss associated with digital formats, there will need to be greater collaboration between creators and DCR to manage digital assets throughout their entire lifecycle.
- Information Technology Services (ITS): For the program to have a true lifecycle approach to the management of digital assets, recognition and cooperation from statewide ITS management will be needed to manage content from creation to disposition.
- Citizens of North Carolina: The citizens of North Carolina have the right to access essential information in a timely fashion.

COLLABORATION/COOPERATION

DCR is committed to collaborating with local and state government and other institutions to advance the development of the digital preservation program, share lessons learned with other digital preservation programs, extend the breadth of available expertise, and extend the digital content that is available to the public through cooperative efforts.

SELECTION

The State Archives and State Library, through retention schedules and interpretation of N. C. Gen. Stat. § 125, respectively, establish the selection requirements for permanently valuable records and publications of the State of North Carolina. Archives and History, in cooperation with state agencies and local records managers, write retention schedules to identify those records and publications that have long term or permanent value to the State of North Carolina. The digital preservation program will build upon these established schedules to include digital assets.

ACCESS/USE

The purpose of preserving digital government assets is to ensure that it remains accessible in the future to the citizens of North Carolina. DCR must provide access using the most up-to-date technology available. When retaining the original look and feel is deemed necessary, digital objects will be rendered in their original format. Sensitive and confidential information will require appropriate restrictions for access and use. Content intended for public dissemination will be available for public use.

REFERENCES

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GLOSSARY

Access: The permission to locate and retrieve information for use within legally established restrictions of privacy, confidentiality, and security clearance.

Born-digital: Information created in electronic format. Born-digital information is distinguished from information that was created in another format and digitized through scanning or digital photography, creating a digital surrogate. A document created using a word processor may be described as born-digital.

Digital asset: digital content that has value based on the administrative, legal, fiscal, evidential, or historical information it contains. Digital assets can consist of born-digital or digitized content.

Digital (electronic) content: Data or information that has been captured and fixed for storage and manipulation in an automated system and that requires the use of the system to render it intelligible by a person. This definition encompasses records and publications.

Digitization: The process of transforming analog material into digital (electronic) form, especially for storage and use in a computer.

Open Archival Information System (OAIS): An archive, consisting of an organization of people and systems that has accepted the responsibility to preserve information and make it available for a Designated Community. It meets a set of responsibilities, as defined in 3.1, that allows an OAIS archive to be distinguished from other uses of the term archive. The term Open in OAIS is used to imply that this Recommendation and future related Recommendations and standards are developed in open forums, and it does not imply that access to the archive is unrestricted.

Permanent value: The ongoing usefulness or significance of records, based on the administrative, legal, fiscal, evidential, or historical information they contain that justifies their continued preservation.

Preservation (and digital preservation): The process of protecting materials from deterioration or damage. Digital preservation typically centers on the choice of interim storage media, the life expectancy of a digital imaging system, and the expectation to migrate the digital files to future systems while maintaining both the full functionality and the integrity of the original digital system.

Repository: An organization that intends to maintain information for access and use.